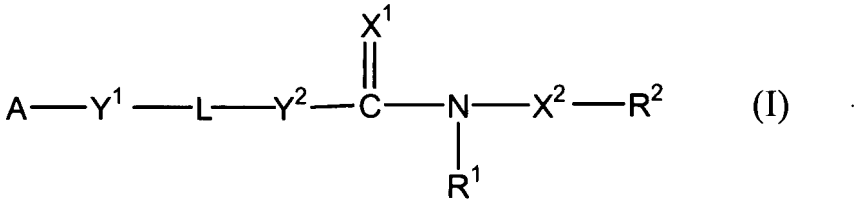
Amendments to the Claims

This listing of claims replaces all prior versions and listings of claims in the application.

Listing of claims:

1. **(Currently Amended)** A method of inhibiting sodium ion transport in an airway epithelial cell comprising contacting the cell with a compound including an oxyamide linkage wherein the compound is trichostatin, SAHA, or a compound of formula (I)



(I)

wherein

A is a cyclic moiety selected from the group consisting of C_{3-14} cycloalkyl, 3-14 membered heterocycloalkyl, C_{4-14} cycloalkenyl, 3-8 membered heterocycloalkenyl, aryl, or heteroaryl; the cyclic moiety being optionally substituted with alkyl, alkenyl, alkynyl, alkoxy, hydroxyl, hydroxylalkyl, halo, haloalkyl, amino, alkylcarbonyloxy, alkyloxycarbonyl, alkylcarbonyl, alkylsulfonylamino, aminosulfonyl, or alkylsulfonyl; or A is a saturated branched C_{3-12} hydrocarbon chain or an unsaturated branched C_{3-12} hydrocarbon chain optionally interrupted by -O-, -S-, -N(R^a)-, -C(O)-, -N(R^a)-SO_2-, -SO_2-N(R^a)-, -N(R^a)-C(O)-O-, -O-C(O)-N(R^a)-, -N(R^a)-C(O)-N(R^b)-, -O-C(O)-, -C(O)-O-, -O-SO_2-, -SO_2-O-, or -O-C(O)-O-, where each of R^a and R^b, independently, is hydrogen, alkyl, alkenyl, alkynyl, alkoxy, hydroxylalkyl, hydroxyl, or haloalkyl; each of the saturated and the unsaturated branched hydrocarbon chain being optionally substituted with alkyl, alkenyl, alkynyl, alkoxy, hydroxyl, hydroxylalkyl, halo, haloalkyl, amino, alkylcarbonyloxy, alkyloxycarbonyl, alkylcarbonyl, alkylsulfonylamino, aminosulfonyl, or alkylsulfonyl;

each of Y^1 and Y^2, independently, is -CH_2-, -O-, -S-, -N(R^c)-, -N(R^c)-C(O)-O-, -O-C(O)-N(R^c)-, -N(R^c)-C(O)-N(R^d)-, -O-C(O)-O-, or a bond; each of R^c and R^d, independently, being hydrogen, alkyl, alkenyl, alkynyl, alkoxy, hydroxylalkyl, hydroxyl, or haloalkyl;

L is selected from the group consisting of:

a saturated straight C_{4-10} hydrocarbon chain substituted with C_{1-4} alkyl, C_{2-4} alkenyl, C_{2-4} alkynyl, C_{1-4} alkoxy, or amino, and further optionally interrupted by -O- or -N(R^c)-;

an unsaturated straight C_{4-8} hydrocarbon chain containing 2-5 double bonds optionally substituted with C_{1-4} alkyl, C_{2-4} alkenyl, C_{2-4} alkynyl, or C_{1-4} alkoxy, and further being optionally interrupted by -O- or -N(R^g)-, where R^g is hydrogen, alkyl, alkenyl, alkynyl, alkoxy, hydroxylalkyl, hydroxyl, or haloalkyl; or

$-(CH=CH)_m-$ where m is 2 or 3, L being optionally substituted with C_{1-4} alkyl, C_{2-4} alkenyl, C_{2-4} alkynyl, or C_{1-4} alkoxy, and further being optionally interrupted by -O- or -N(R^g)-;

R^1 is hydrogen, alkyl, alkenyl, alkynyl, alkoxy, hydroxylalkyl, hydroxyl, haloalkyl, or an amino protecting group; and

R^2 is hydrogen, alkyl, hydroxylalkyl, haloalkyl, or a hydroxyl protecting group;

each of X^1 and X^2, independently, is -O-;

or a pharmaceutically acceptable salt thereof,

in an amount effective to inhibit sodium ion transport.

2. **(Cancelled)**

3. **(Original)** The method of claim 2, wherein R^1 is hydrogen.

4. **(Original)** The method of claim 2, wherein R^2 is hydrogen.

5. **(Cancelled)**

6. **(Cancelled)**

7. **(Currently Amended)** The method of claim [[2]] 1, wherein Y^1 is $-CH_2-$, -O-, -N(R^a)-, or a bond, and Y^2 is $-CH_2-$, -O-, or -N(R^c)-.

8. **(Currently Amended)** The method of claim [[2]] 1, wherein L is a saturated straight C_{4-10} hydrocarbon chain substituted with C_{1-4} alkyl, C_{2-4} alkenyl, C_{2-4} alkynyl, C_{1-4} alkoxy, or amino, and further optionally interrupted by -O- or -N(R^c)-.

9. **(Currently Amended)** The method of claim claim [[2]] 1, wherein L is an unsaturated straight C_{4-8} hydrocarbon chain containing 2-5 double bonds optionally substituted with C_{1-4} alkyl, C_{2-4} alkenyl, C_{2-4} alkynyl, or C_{1-4} alkoxy, and further being optionally interrupted by -O- or -N(R^g)-, where R^g is hydrogen, alkyl, alkenyl, alkynyl, alkoxy, hydroxylalkyl, hydroxyl, or haloalkyl.

10. **(Currently Amended)** The method of claim claim [[2]] 1, wherein L is -$(CH=CH)_m$- where m is 2 or 3, L being optionally substituted with C_{1-4} alkyl, C_{2-4} alkenyl, C_{2-4} alkynyl, or C_{1-4} alkoxy, and further being optionally interrupted by -O- or -N(R^g)-.

11. **(Currently Amended)** The method of claim claim [[2]] 1, wherein A is phenyl, furyl, thienyl, pyrrolyl, or pyridyl.

12. **(Original)** The method of claim 11, wherein A is phenyl optionally substituted with alkyl, alkenyl, alkynyl, alkoxy, hydroxylalkyl, or amino.

13. **(Original)** The method of claim 1, wherein the cells are contacted with the compound in vivo.

14. **(Original)** The method of claim 1, wherein the cells are contacted with the compound in vitro.

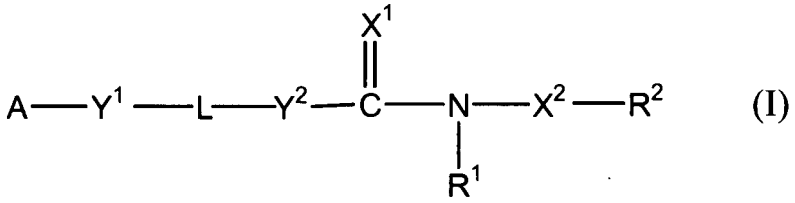
15. **(Original)** The method of claim 1, wherein the compound is 5-phenyl-2,4-pentadienoylhydroxamic acid.

16. **(Original)** The method of claim 1, wherein the compound is 7-phenyl-2,4,6-heptatrienoylhydroxamic acid.

17. **(Original)** The method of claim 1, wherein the compound is trichostatin.

18. **(Original)** The method of claim 1, wherein the compound is SAHA.

19. **(Currently Amended)** A method of treating lung disease in a mammal comprising administering to the mammal a compound including an oxyamide linkage wherein the compound is trichostatin, SAHA, or a compound of formula (I)



(I)

wherein

A is a cyclic moiety selected from the group consisting of C_{3-14} cycloalkyl, 3-14 membered heterocycloalkyl, C_{4-14} cycloalkenyl, 3-8 membered heterocycloalkenyl, aryl, or heteroaryl; the cyclic moiety being optionally substituted with alkyl, alkenyl, alkynyl, alkoxy, hydroxyl, hydroxylalkyl, halo, haloalkyl, amino, alkylcarbonyloxy, alkyloxycarbonyl, alkylcarbonyl, alkylsulfonylamino, aminosulfonyl, or alkylsulfonyl; or A is a saturated branched C_{3-12} hydrocarbon chain or an unsaturated branched C_{3-12} hydrocarbon chain optionally interrupted by -O-, -S-, -N(R^a)-, -C(O)-, -N(R^a)-SO_2-, -SO_2-N(R^a)-, -N(R^a)-C(O)-O-, -O-C(O)-N(R^a)-, -N(R^a)-C(O)-N(R^b)-, -O-C(O)-, -C(O)-O-, -O-SO_2-, -SO_2-O-, or -O-C(O)-O-, where each of R^a and R^b, independently, is hydrogen, alkyl, alkenyl, alkynyl, alkoxy, hydroxylalkyl, hydroxyl, or haloalkyl; each of the saturated and the unsaturated branched hydrocarbon chain being optionally substituted with alkyl, alkenyl, alkynyl, alkoxy, hydroxyl, hydroxylalkyl, halo, haloalkyl, amino, alkylcarbonyloxy, alkyloxycarbonyl, alkylcarbonyl, alkylsulfonylamino, aminosulfonyl, or alkylsulfonyl;

each of Y^1 and Y^2, independently, is $-CH_2-$, -O-, -S-, $-N(R^c)-$, $-N(R^c)-C(O)-O-$, $-O-C(O)-N(R^c)-$, $-N(R^c)-C(O)-N(R^d)-$, $-O-C(O)-O-$, or a bond; each of R^c and R^d, independently, being hydrogen, alkyl, alkenyl, alkynyl, alkoxy, hydroxylalkyl, hydroxyl, or haloalkyl;

L is selected from the group consisting of:

a saturated straight C_{4-10} hydrocarbon chain substituted with C_{1-4} alkyl, C_{2-4} alkenyl, C_{2-4} alkynyl, C_{1-4} alkoxy, or amino, and further optionally interrupted by -O- or $-N(R^c)-$;

an unsaturated straight C_{4-8} hydrocarbon chain containing 2-5 double bonds optionally substituted with C_{1-4} alkyl, C_{2-4} alkenyl, C_{2-4} alkynyl, or C_{1-4} alkoxy, and further being optionally interrupted by -O- or $-N(R^g)-$, where R^g is hydrogen, alkyl, alkenyl, alkynyl, alkoxy, hydroxylalkyl, hydroxyl, or haloalkyl; or

$-(CH=CH)_m-$ where m is 2 or 3, L being optionally substituted with C_{1-4} alkyl, C_{2-4} alkenyl, C_{2-4} alkynyl, or C_{1-4} alkoxy, and further being optionally interrupted by -O- or $-N(R^g)-$;

R^1 is hydrogen, alkyl, alkenyl, alkynyl, alkoxy, hydroxylalkyl, hydroxyl, haloalkyl, or an amino protecting group; and

R^2 is hydrogen, alkyl, hydroxylalkyl, haloalkyl, or a hydroxyl protecting group;

each of X^1 and X^2, independently, is -O-;

or a pharmaceutically acceptable salt thereof,

in an amount effective to inhibit sodium ion transport.

21. **(Original)** The method of claim 19, wherein the compound is 5-phenyl-2,4-pentadienoylhydroxamic acid.

22. **(Original)** The method of claim 19, wherein the compound is 7-phenyl-2,4,6-heptatrienoylhydroxamic acid.

23. **(Original)** The method of claim 19, wherein the compound is trichostatin.

24. **(Original)** The method of claim 19, wherein the compound is SAHA.

25. **(Original)** The method of claim 19, wherein the lung disease is cystic fibrosis, chronic obstructive pulmonary disease, asthma, acute bronchitis, or chronic bronchitis.

26. **(Original)** A method of treating cystic fibrosis in a mammal comprising administering to the mammal an effective amount of 5-phenyl-2,4-pentadienoylhydroxamic acid, or a pharmaceutically acceptable salt thereof.

27. **(Original)** A method of treating cystic fibrosis in a mammal comprising administering to the mammal an effective amount of 7-phenyl-2,4,6-heptatrienoylhydroxamic acid, or a pharmaceutically acceptable salt thereof.

28. **(Original)** A method of treating chronic obstructive pulmonary disease in a mammal comprising administering to the mammal an effective amount of 5-phenyl-2,4-pentadienoylhydroxamic acid, or a pharmaceutically acceptable salt thereof.

29. **(Original)** A method of treating chronic obstructive pulmonary disease in a mammal comprising administering to the mammal an effective amount of 7-phenyl-2,4,6-heptatrienoylhydroxamic acid, or a pharmaceutically acceptable salt thereof.

30. **(Original)** A method of treating asthma, acute bronchitis, or chronic bronchitis in a mammal comprising administering to the mammal an effective amount of 5-phenyl-2,4-pentadienoylhydroxamic acid, or a pharmaceutically acceptable salt thereof.

31. **(Original)** A method of treating asthma, acute bronchitis, or chronic bronchitis in a mammal comprising administering to the mammal an effective amount of 7-phenyl-2,4,6-heptatrienoylhydroxamic acid, or a pharmaceutically acceptable salt thereof.